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(71) Applicant (*for all designated States except US*): **KONINKLIJKE PHILIPS ELECTRONICS N.V.** [NL/NL]; Groenewoudseweg 1, NL-5621 BA Eindhoven (NL).

(72) Inventors; and

(75) Inventors/Applicants (*for US only*): **HENDRIKS, Bernardus, H., W.** [NL/NL]; c/o Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL). **KUIPER, Stein** [NL/NL]; c/o Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL).

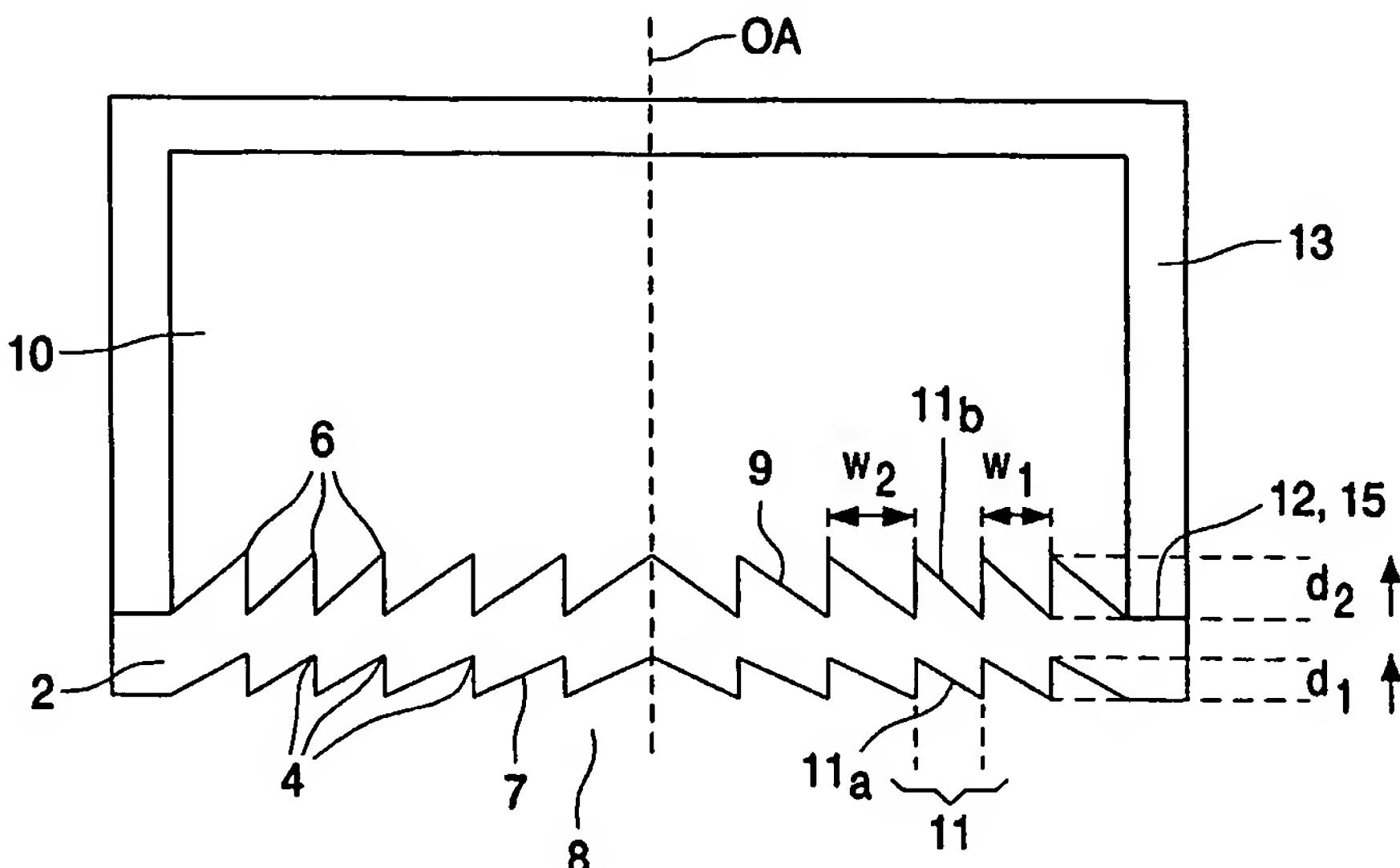
(74) Agent: **VISSEER, Derk**; Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL).

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[Continued on next page]

(54) Title: DIFFRACTIVE OPTICAL STRUCTURE WITH A LIQUID INTERFACE



(57) Abstract: An optical system comprising a diffraction element (2) formed of a substantially rigid first material having a first refractive index. The diffraction element has a first plurality of grooves (4) at a first interface of the diffraction element with a second material (8) having a second refractive index; and a second, different, plurality of grooves (6) at a second, different, interface of the diffraction element with a third material (10) having a third refractive index. The first and second pluralities of grooves (4), (6) are aligned with respect to each other such that a combined diffractive effect is achieved. Moreover, the third material (10) is a liquid. The diffractive element may be manufactured using an injection moulding technique, following which the second and/or third materials may be applied in fluid form. By use of the invention, the two pluralities of grooves may be aligned with respect to each other with a high degree of efficiency and reliability

WO 2005/019882 A1

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